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ABSTRACT

This unit of study for grades K-2 focuses on counting coins and coin equivalencies up to 50 cents, making use of a literature connection. The unit provides key words; recommends subject areas and approximate length of time; poses an essential question or problem; provides a unit introduction; notes four individual lessons ((1) For Sale!; (2) Mixing Coins; (3) Stamping Coins; (4) Matching Pairs), and suggests a culminating activity. Each of the four lesson plans provides keywords and time duration; offers a brief description; addresses national standards; notes objectives; lists materials needed; outlines a detailed step-by-step procedure for classroom implementation; addresses assessment; and suggests differentiated learning options. (BT)

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Creative Coin Combinations Unit Plans

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Unit Plans

Creative Coin Combinations

Description of Unit:

This unit focuses on counting coins and coin equivalencies up to fifty cents for grades K – 2, making use of a literature connection.

Keywords:

- Cent
- Coin Equivalents
- Dime
- Half Dollar
- Math Games
- Money
- Nickel
- Patterns
- Penny
- Quarter
- Representation
- Skip Counting

Grade Level(s): K-2

Main Subject Area: Mathematics

Additional Subjects:

- Language Arts

Approximate Length of Time: 5-7 days

Essential Question or Problem:

How can one create different amounts using a variety of coin denominations?

Unit Introduction:

Introduce an appropriate money-related story, such as Caps for Sale by Esphyr Slobodkina, The Great Pet Sale by Mick Inkpen, The Lunch Line (Hello Math Reader, Level 3) by Karen Berman Nagel, or Monster Money by Grace MacCarone, by taking a picture walk through the book with your students. Show the story's cover, and be sure to point out the story's title, author and illustrator. Read aloud the story with the class and discuss any new vocabulary as it arises. To get the children more familiar with story, you can act it out with them. The teacher can be the narrator and students can play the roles of the characters.

Individual Lessons:

1. For Sale!
2. Mixing Coins
3. Stamping Coins
4. Matching Pairs

Culminating Activity:

Students can bring in an item from home that relates to the purchase made (or discussed) in the story. Students can use this item as a model to make a poster. They can include the words "For Sale", a picture of their item, and a set price of 50 cents. They can show all the different ways they know how to make 50 cents on their poster.

Lesson Plans

For Sale!

Main Subject Area: Mathematics

Additional Subjects: Language Arts

Duration of Lesson: 45 minutes

Keywords:

- Cent
- Coin Equivalents
- Dime
- Half Dollar
- Nickel
- Penny
- Quarter
- Skip Counting

Brief Description:

After reading an appropriate children's math text, students will review same type (denomination) coin sets, and will build same type coin sets equaling fifty cents.

National Standard(s):

- Number and Operations
- Representation

Additional Subject Area Standard(s):

- Demonstrate competence in the general skills and strategies of the reading process

Objectives:

Students will learn to display coin equivalents with same type coin sets (i.e. they will display the amount equivalent to a quarter using only nickels).

Students will learn the different ways to make 50 cents using a variety of coin denominations.

Students will practice skip counting using 5 and 10.

Materials (online):

Materials (offline):

An appropriate children's text relating to the purchase of goods with coins, such as Caps for Sale by Esphyr Slobodkina, The Great Pet Sale by Mick Inkpen, The Lunch Line (Hello Math Reader, Level 3) by Karen Berman Nagel, Monster Money by Grace MacCarone, or an alternate appropriate text.

Real or play coins: cents (pennies), nickels, dimes, quarters, and half dollar for each group of students (or coin stamps)

Math Journals

Coins Used in Lesson:

Currently circulating cents (pennies), nickels, dimes, quarters, and half dollars

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Read the selected children's story either in a reading group or as a read aloud.

2. At the end of the story ask the students questions about the purchases being made in the story, such as "What was being bought?" and "How much did it cost?" (If there is an item that costs 50¢, ask questions that revolve around that item).

3. Explain that as a group you are going to learn the different ways to buy an item that costs 50¢.

4. Review the value and characteristics of each of the coins that will be used in this activity [currently circulating cents (pennies), nickels, dimes, quarters,

and half dollars].

5. As a group, review the idea that you can use smaller coin values to build a larger amount (five pennies is five cents, the same thing as a nickel). For this activity discuss only same type (denomination) coin sets.

6. Distribute real or play coins (of the denominations listed above) to each student.

7. Have your students show you how they can make different amounts with the coins that they have in front of them. Start with a small amount (such as ten cents) and ask your students to show different ways in which they can use cents (pennies) and then nickels to create this amount.

8. Once students seem comfortable with this concept, have them work in groups to try to make fifty cents using same type coin sets. For this first lesson make sure that the class becomes familiar with the basic equivalencies for fifty cents; ie. fifty cents (pennies); ten nickels; five dimes; two quarters; and one half dollar. This is an excellent time to teach skip counting or review skip counting with students working with nickels and dimes.

Assessment / Evaluation:

Students can demonstrate to each other the different ways to make 50 cents using the same coins. Students can record their findings in their math journals. Students can be evaluated on their math journal entries.

Differentiated Learning Options:

Advanced students could learn to skip count with quarters and half dollars. To give students additional practice, Math Keys Whole Numbers (or similar software) would allow students to practice their skip counting up to $1.00 or even $5.00.

Lesson Plans

Mixing Coins

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Cent
- Coin Equivalents
- Dime
- Half Dollar
- Nickel
- Penny
- Quarter

Brief Description:

Students will explore mixed (different denomination) coin sets and will create different total amounts using what they learn.

National Standard(s):

- Number and Operations
- Communication
- Representation

Additional Subject Area Standard(s):

Objectives:

Students will learn to display coin equivalents with mixed coin sets.

Students will learn ways to make different numeric amounts using coins.

Materials (online):

Materials (offline):

Real or play coins: cents (pennies), nickels, dimes, quarters, and half dollar for each group of students (or coin stamps)

Precut shapes (that relate to the story read in the lesson, "For Sale!") with numeral values written on them (laminate these for durability)

Math Journals

Coins Used in Lesson:

Currently circulating cents (pennies), nickels, dimes, quarters, and half dollars

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Once students have been exposed to the basics of skip counting, introduce them to the idea of creating coin equivalencies using mixed sets of coins (not same coin type as in the lesson, "For Sale!"). Distribute real or play coins (of the denominations listed above) to each student, and have them show how to make a set amount by using different types of coins. Have your students start by creating ten cents using pennies and nickels.

2. Once students seem comfortable with this concept, divide students into working pairs or small groups, and give each group ten shapes and an assortment of real or play coins.

3. Have the student groups count out coins to match the numerical values on their shapes.

4. In their math journals, have the students copy the numerical value on each shape and underneath draw coins used to make the matching amount.

5. Repeat this activity the next day distributing different shape sets to different groups, but using the same procedure.

Assessment / Evaluation:

Students can be evaluated on their math journal entries. Students showing eighty percent accuracy are ready for the next lesson.

Differentiated Learning Options:

Create sets of shapes with larger or smaller amounts listed so as to meet the needs of all of the students.

Lesson Plans

Stamping Coins

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Cent
- Coin Equivalents
- Dime
- Half Dollar
- Money
- Nickel
- Penny
- Quarter
- Representation

Brief Description:

Students will learn and demonstrate that they can use a variety of coin combinations to make a single amount.

National Standard(s):

- Number and Operations
- Problem Solving
- Representation

Additional Subject Area Standard(s):

Objectives:

Students will learn coin about equivalents.

Students will learn all the ways to make 50 cents using coins using different coins.

Materials (online):

Materials (offline):

1 large piece of paper for each student pair

1 precut shape for each student pair that relates directly to the story read in the lesson, "For Sale!" This shape should be different from the shape used in the lesson, "Mixing Coins."

Real or play coins: cents (pennies), nickels, dimes, quarters, and half dollar for each group of students

Glue

Coin stamps

Coins Used in Lesson:

Currently circulating cents (pennies), nickels, dimes, quarters, and half dollars

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Review with students skip counting with coins and counting out coins to match numerical values.

2. Introduce your students to the idea that they can make a single coin amount using different coin combinations. Model with your students one way for making 25 cents, and then invite students to try to make 25 cents in a different way.

3. Once students seem comfortable with this concept, divide students into working pairs, and give each pair their precut shape to glue on top of a large piece of paper, an assortment of real or play coins, and coin stamps.

4. Have the students use their coins to make all possible combinations that equal fifty cents. Each time the students find a new combination, have them stamp the correct coins in a row on the monkey.

Assessment / Evaluation:

Students can be evaluated on their large piece of paper showing the different ways to make 50 cents.

Differentiated Learning Options:

Students could also do this assignment independently or in larger groups, depending on their needs.

Lesson Plans

Matching Pairs

Main Subject Area: Mathematics

Duration of Lesson: 45 minutes

Keywords:

- Cent
- Coin Equivalents
- Dime
- Half Dollar
- Math Games
- Money
- Nickel
- Patterns
- Penny
- Quarter

Brief Description:

Students will match coins (of different denominations) to different amounts.

National Standard(s):

- Number and Operations
- Representation

Additional Subject Area Standard(s):

Objectives:

Students will demonstrate making coin equivalents.

Students will match coins to different amounts.

Materials (online):

Materials (offline):

Precut shapes with coin values on them (quarter, dime, nickel, etc.) – these should be the same shapes used in the lesson "Mixing Coins"

Precut shapes with different numeric values (1, 5, 10, 15, etc.) – these should be the same shapes used in the lesson "Stamping Coins"

Blank precut shapes (these should be the same shapes used in the lesson "Mixing Coins") for each student

1 large die-cut shape for the class (this should be the same shape used in the lesson "Stamping Coins")

Coins Used in Lesson:

Currently circulating cents (pennies), nickels, dimes, quarters, and half dollars

Grade Level(s): K-2

Procedures (online):

Procedures (offline):

1. Break students into pairs and explain that they will be using the skills that they have been working on over the past few days to play a math matching game.

2. Model the game for the students. They will take turns matching the appropriate shapes (listing coin values) to those with numerical values listed on them. When students are successful, they win a blank shape for their collection.

3. Monitor the students to see if they are counting correctly.

4. Students can write their name on and decorate the blank shapes in their collection.

5. Create a bulletin board within or outside of the classroom that relates to the story read at the beginning of this unit. It should be covered with the students decorated shapes and could be titled, "For Sale!"

Assessment / Evaluation:

A parent volunteer or teacher assistant can work with each child individually.

Each student should be able to demonstrate they are counting correctly.

Differentiated Learning Options:

n/a

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